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CENTRAL INTELLIGENCE AGENCY

REPORT

INFORMATION REPORT

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SUBJECT Ishevsk Iron, Armament, and Vehicle Works

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INFO.SUPPLEMENT TO
REPORT NO. 25X1

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1. The Ishevsk Works (56°51'N/53°14'E) are known under many names. Since the production of this enterprise ranged from raw steel to component parts for engines, arms, and motor vehicles, the reported designations obviously apply to individual sections of the plant, which was sometimes also called "Udmurtchaska Heavy and Light Industry Combine." [redacted] the enterprise as a whole was called "Lenin Zavod" or "Ishevsky Zavod". Reference was also made to numerical designations such as Nos 24, 71, 74, and 471, but these possibly apply to individual departments only. The most common designation was "Zavod No 71" or "Trust No 71".

The very heart of the enterprise was the metal department, usually called "Ishevski Steel Works", "Ishevski Iron Works" or "Ishevski Metal Combine". [redacted] the steel mill was designated No 24, [redacted] No 74 was used only for those departments which were engaged in the manufacture of arms and component parts for arms. Reference was frequently made to "Ishevsk Arms Factory No 74". [redacted] No 74 also comprised the engine plant, while others called the latter "Engine Factory MGB". Apparently the post-war new production line of motorcycles, engines and motor vehicle accessories was not designated by a special number or name. [redacted]

[redacted] No 471 applies to the entire enterprise. Presumably the combine's official designation was "Ishevski ~~Ishevskiy~~ I Orusheyiny I Avtosborochny Savod".

Data regarding the size of the combine also varied greatly, between 1 and 25 sq. kilometers, but all agree that the factory had a square surface. [redacted] a surface of 4 to 5 sq. kilometers. 150,000 sq. meters of which were covered by installations.

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The combine was located in the center of Ishevsk which is the capital of the autonomous Udmurt Republic and has 350,000 to 360,000 inhabitants. The town extends along the border of a 17-20 km long and 3-4 km wide dammed lake of the Izh River, which is a tributary of the Kama River. While the surrounding area is relatively level terrain, the lake, the town center and the combine are located in a shallow depression. The plant was located some 400 to 500 meters south of the lake at its southern tip and some 3 to 4 meters lower than the level of the lake. Both the eastern and the southern shore of the lake were protected by a 5 to 6 meter high dam. In case of a rupture of this dam, the entire plant and the surrounding town area would be inundated. After leaving the lake, the Izh River traversed the plant area for some 100 meters and its bank was equipped with mooring and loading facilities. The lake was navigable for small 500-ton barges. After passing through the plant area, the Izh River follows a southerly direction and finally empties into the Kama River. North and south of the factory area as well as within it, the Izh is crossed by road bridges. A railroad bridge crosses it 0.5 to 1 km to the south.

The factory compound was bordered to the north by the Sovetskaya Ulidza main street and to the south by Asiya Ulidza street. Some 100 meters east of the factory and beyond the river was a large through-street. At about the level of the lake, several public buildings such as the broadcasting station, the culture park, the theatre, the court of justice, a ministry and the "Gastronom" were located on either side of this street.

The combine was bordered by streets on all four sides. The main entrance was located on the eastern side.

About 0.5 kilometers south of the combine was a street intersection. One kilometer to the south was the so-called Kazan railroad station.

[redacted] a single-track railroad line (according to others the line was double-tracked) extended southward to Argys, a railroad junction of the multi-tracked Transsiberian Line (Moscow - Gorki - Kazany - Sverdlovsk). Argys (56°33'N/53°02'E) is situated some 30 kilometers south of Ishevsk and 25 kilometers west of Sarapul. Another line extended from Kazan (55°45'N/49°08'E) railroad station to Votkinsk (57°03'N/53°59'E) in the northeast. A third line extended to the west via the so-called Ufa railroad station located 1 km west of Kazan station, and another line with several side lines extended into the factory area. A locomotive station accomodating 12-15 factory locomotives was situated on this line some 100 meters south of the entrance to the plant.¹

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2. [redacted] the Ishevsk plant is one of the oldest Russian arms factories. It is said to have served these purposes as early as in the times of Peter the Great. The present plant dates back to the time of the Russian Empire. Several buildings were erected in 1902 and 1903.

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Between the two world wars, the plant was expanded. A number of new buildings was erected in the period between 1931 and 1941. No war damage was incurred. Except for a new workshop, no new structures were erected after the war. Several departments were modernized.

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In early 1946, the Chemnitz DKW plant of Auto-Union was dismantled and transferred to Ishevsk. In May 1946, the workshop building which housed this plant was destroyed by fire. It was rebuilt and a new workshop building was added. Production work was said to have been under way as early as late 1946, [redacted] it was not before the autumn of 1947.

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5. In spite of the large area covered by the Ishevsk plant, the plant shows a very complex setup and it was impossible clearly to outline the different production departments. The plant was practically self-supplying in that it produced every component part required for the manufacture of machinery, arms and motor cycles.

Due to the complexity of the plant, the data [redacted] are rather contradictory about size, designation, and purpose of the different workshops as well as the production program and equipment.

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The following four divisions of the Ishevsk works were observed

- a. The metal division situated in the center of the compound and comprising a smelting plant, two foundries, an electric steel department, an open hearth (Siemens-Martin) plant, a blooming mill, finishing rolls, a cold rolling mill, a wire mill, two blacksmith shops, and a hardening plant.
 - b. The engine and arms division including a file plant, a hardware department, a punching department, two hand firearms departments, an ammunition department, a sporting arms department, a department for small tools, a gear plant, a turning and molding department for engine parts, a plant for simple machine tools and machine parts.
 - c. The motorcycle and motor vehicle accessories division including a chain factory, a plant for motor vehicle accessories, a cast iron plant, and a motorcycle plant.
 - d. Auxiliary divisions including a saw mill, a wood-working department, a molding plant, a boiler house, a gas plant, magazines, and storage points.²
4. Iron and steel materials as well as parts and accessories produced at Ishevsk primarily served the factory's own needs. A minor proportion was designed for sale. Delivery of finished products was the main target of the production line.

The following shipments were observed leaving the Ishevsk works:

Round, square, hexagon and octagon bar steel, 10-20 cm in diameter and 1 - 5 meters long, 20-30 tons daily.

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U, T, I, and angle steel, 10-20 cm high and 3 - 4 meters long, 250 items daily.

Steel and armor plates, 6 - 25 cm thick, 1 - 1.5 x 2 meters across, 300 items daily.

Tracks, flat bars, heavy and light sheets, 40-50 tons daily.
Wire, barbed wire and wire mesh, 200-250 x 100-meter rolls daily.

Steel cables and ropes, 3-4 tons daily.
Piping 40-80 cm in diameter and 2.5 to 3 meters long, about 400 items daily.
Boiler casings and boilers, 15-20 items daily.
Ship's drive shafts, crankshafts for tanks and prime movers, and camshafts, 120-150 items daily.
Axles, connecting rods, bumpers, cylinder pistons, and T-34 tank turrets of up to 35 mm thickness.
Tank tracks, track wheels, and track-supporting rollers.
Helical, laminated and annular springs, 1-2 tons daily.
Nails, pins, rivets, nuts, bolts, screws, 4 - 5 daily.
Triangular, round and flat files, one freight car load of 48,000 to 50,000 items, equivalent to 10 - 12 tons daily.
Small tools such as hammers, gimlets, flat-jawed pliers, round-nose pliers, end-cutting pliers, wire cutters, screw drivers, hatchets, axes and the like, 1,500 items daily.
Machine tools, especially chuck lathes, 20 items daily.
Gun tubes, 45 cal/1.1 meters length, 50 cal/1.2 meters length, 57 cal/1.2 meters length, 85 cal/1.8-3 meters length, 122 cal/3 meters length; 4 - 5 items daily

Tubes for mortars and flame throwers.

Aircraft guns, AA and AT guns of 20, 37, 50, 75 and 88-mm cal.
Breech blocks for heavy AA guns
Cartridges, grenades, and artillery ammunition of all known calibers, 40 - 50 tons daily.
Mines and torpedo bodies, 10-20 items daily.
Cartridge clips and cartridges, 30 boxes daily.
90 mm "Nagan" pistols and submachine guns, about 8,000 items daily.
79 mm carbines with folding bayonet, and automatic 11-shot infantry rifles, about 1,000 to 1,200 items daily.

Bayonets.

Light machine guns with drum magazines, and heavy water-cooled "Maxim" machine guns.

Diesel engines, 10-12 items daily.

Motorcycles of 200, 250, and 350 cb. cm capacity, without side car, 45 - 50 items daily.

After the displacement of the Chemnitz DKW Works to Ishevsk, the initial output had been 10 - 12 motorcycles daily. This figure rapidly increased to 20-25 machines daily, an ultimate target of 100 machines daily was to be reached. During the period under observation, only one passenger machines were manufactured. It is not known whether or not side car machines were slated for production.

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5. Power was supplied by the municipal power plant which delivered power to two other enterprises. A factory-owned stand-by power capacity was available for peak load requirements. Gas and steam were delivered by the factory-owned boiler house. A daily total of 150 tons of coal were required for operating the boiler house, 110 - 120 tons for steam and 30-40 tons for generating purposes. The daily coal requirements of the gas plant were estimated at between 400 and 420 tons. The place of origin of the coal shipments was unknown; the shipments were believed to arrive from the Ural Mts or from Siberia.

A daily minimum of one train of 50-60 tank cars holding 900-1,000 cubic meters of fuel arrived at Kazan railroad station to supply the Ishevsk plant. Heavy fuel tank cars were unloaded directly within the plant area. Fuel and lubricants were transloaded at the tank depot and trucked to the plant. In addition to tank car shipments, fuel arrived in barrels by train and on trucks. The Ufa (54°43'N/55°58'E) refining plant was mentioned as place of origin.

Special raw iron, allegedly from Ufa and Sverdlovsk, was delivered for the manufacture of open hearth steel and electric steel. About 200 to 300 tons of raw iron were always available at the raw iron depot.

In addition to raw iron, scrap material was used at the metal plant. During the postwar period, this scrap material chiefly consisted of captured German materiel. Later the scrap came from the USSR. The major part of the scrap consisted of arms scrap (rifle and machine gun barrels, tubes, and tank parts). The scrap dump always contained several hundreds of tons of material. A weekly average of 600 to 800 tons of raw iron and scrap were piled there.

Some 60 to 70 tons of flux material consisting of lime, gravel and sand were required daily for the steel production.

The lumber required at the saw mill, the wood-working department, and the modelling shop was delivered from the environs of Ishevsk and the Ural Mts. A daily average of 200 cubic meters of round timber, square timber, cut timber and worked timber was shipped to the plant. Wooden parts for hand firearms were manufactured at the plant. According to some of the sources, rubber tires and electrical equipment were delivered from Moscow.

Engines and engine parts as well as motor vehicle accessories not manufactured at the Ishevsk plant itself, came chiefly from Chelyabinsk and Gorki.

6. It was generally reported that three shifts were worked per day including Sundays. Work was interrupted only on state holidays. While three 8-hour shifts were generally reported [] the day shifts worked 8 1/2 hours and the night shift 7 hours only. In contrast to the general statement that all departments worked night and day [] only one shift was worked in several workshops, [] a double shift was worked in other workshops, and []

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three shifts were worked only in one portion of the plant. It is believed possible that normal office hours were observed by the administration, that two shifts were worked at the depot, the garages and the repair shops, and that consecutive hours were worked at the production division only.

Data on the size of the labor force vary between 12,000 and 50,000 men. Considering that the lowest figures may apply to individual divisions of the works, and leaving obvious exaggerations aside, an average of 15,000 to 18,000 workers (5,000 to 6,000 per shift) appears credible. Each shift was believed to include 3,600 to 4,000 special workers.

The following data on the strength of the shifts in the different departments are available:

steel production	800
rolling mill	180
blacksmith shop	150
foundry	200
turning and milling	300
department	
wire mill	120
engine plant and arms	
department	1,000
motor vehicles and	
accessories department	1,500
mechanical workshops	300
garages and repair shops	80

A large proportion of the labor force was said to consist of displaced persons including many women and young people. The percentage of forced laborers was estimated at 50 percent. The percentage of women workers was very high; the estimates were as high as 40 percent.

Numerous German engineers, technicians and special workers, who had signed 5-year contracts were employed at the plant. A number of them were said to have volunteered for the employment and had come with their families. The number of German specialists was estimated at between 100 and 200 persons. The major part was employed at the "DKW" enterprise, among them 12-15 engineers and 25 - 30 special workers. The engineers were permanently guarded. Russians and Jews were in charge of the works management. A German-born Soviet of undetermined name was said to be general manager. One Dostojevsk (fnu) was manager of the metal department, his chief engineer was one Siderov (fnu). One Beier (fnu) was said to be labor manager. This man allegedly was the top official at the Ishevsk plant and is probably identical with the general manager. Soviet armament specialists were continuously inspecting the arms production and supervised acceptance operations and test firings.

7. To the east, the plant was bordered by a wall, to the other three sides, it was surrounded by either a 3-meter high board fence topped with barbed wire or by a 2.5-meter high barbed wire fence. Four-meter high watch towers were located every 150-200 meters. The entire compound was illuminated by flood lights at night.

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No uniform information was obtained regarding the guarding of the compound. Apparently the plant was guarded by Soviet soldiers as well as by MVD, factory police, and civilian factory police. The entrances were guarded by soldiers as well as by factory police in uniform. Military patrols were observed around the plant, while factory police and civilian factory police patrolled inside the compound. The arms departments were specially guarded by the MVD. The Soviet soldiers and the MVD formed special commands and were billeted separately. The factory police wore blue uniforms without insignia and were equipped with hand firearms. The civilian factory police also had hand firearms. Both these forces included a number of women. The patrols were accompanied by dogs.

All engineers, technicians and workers employed at the plant were equipped with identification cards which were closely checked at the entrances. Body searches were carried out frequently. Checking was repeated at the entrances to the different workshops and was particularly strict at workshops for the manufacture of engines, tools, arms, motorcycles and motor vehicle accessories. No information regarding active or passive air protection measures were available. No AA installations or air raid shelters were observed, except for roofed-over trench shelters dating back to World War II

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1. Comment. For details of the location of the plant, see location sketch of Annex 1 25X1
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2. Comment. For details of the layout of the plant, see layout sketch of Annex 2. 25X1
3. Comment. The plant is known to have existed since 1870. In 1929, its numerical designation was No 10. In 1935, it was redesignated No 180. After 1939, numerical designation No 71 was given to the metal department, and No 74 to the engine and arms department. The designation of the plant as a whole was "Ishevski Orusheni i Shelyesodelyatelni Zavod". In 1946, the plant was enlarged by the transfer from Chemnitz of the Auto-Union DKW Works. Whether or not No 471 refers to this plant could not be ascertained. In recent times, the plant in its entirety was called No 71. 25X1

Prior to World War II, the plant had a labor force of 5,000 to 6,000 persons. After World War II, 10,000 to 12,000 workers were employed in three daily shifts.

Reliable war-time information mentioned the following departments of the metal plant:

1. Old open-hearth furnace plant, equipped with 4 open hearth furnaces with 30-ton holding capacity each, and 18-20 sq.meters hearth area (wood-gas generator firing),
1943 production: 100,000 tons of arm and spring steel
2. New open hearth furnace plant equipped with 4 open hearth furnaces of 40-ton holding capacity each and 22 - 25 cubic meters hearth area (wood-gas generator firing),
1943 production: 130,000 tons of arm, tool and construction steel.

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3. Electric steel plant equipped with 3 electric furnaces of 12-ton holding capacity each. Two of these furnaces were put into operation in 1934, the third one in 1935.
1943 production: 30,000 tons of refined steel (Cr-Ni-V-steel), Cr-Ni-Mo-steel, Cr-W-steel, and silver steel)
4. Crucible steel department, equipped with 9 furnaces of 35 crucibles each.
5. Blooming mill equipped with one breaking down mill train 850 mm in diameter, of Krupp manufacture. Production of square bar steel, steel plates and strips.
6. Cold rolling mill equipped with two rolling mill trains. Production of flat-bar steel, strip steel and file steel, wire, and springs.
7. Plate rolling mill and finishing rolls equipped with a plate-mill train and a small section mill. Production of sheets, profiles and strips.

In 1943, the total steel output amounted to 270,000 tons. Part of this output was delivered to other enterprises, the majority was used for the factory's own needs. 70 percent went to the rolling mill (approximately 130,000 tons per year), 30 percent to the foundry and the blacksmith shops.

In 1943, the raw iron requirements amounted to 110,000 tons, and 170,000 tons of scrap iron were used. Raw iron (special steel raw iron) was delivered by the Novo-Tagil metal enterprise, charcoal was manufactured at factory-owned forests located some 70 to 75 kilometers from the factory. Prior to the completion of the nearby large-scale power plant, power was supplied by a factory-owned power station (2 turbines) as well as by a small thermal power plant operating with mazout.

In 1951, 180,000 tons of steel were produced by the old open hearth furnace plant. The daily output by the new open hearth furnace plant was 6 tons per square meter of furnace area in 1949, 7.2 tons in 1950, and 8.5 tons in 1951. Production by the new open hearth furnace plant rose from 162,000 tons in 1949 to 194,000 tons in 1950, and to 228,000 tons in 1951.

At the crucible steel department, the output was increased by a 1-hour reduction of the casting time in 1950, and by a 2-hour reduction in 1951. No information is available regarding equipment and production at the auxiliary departments of the arms and engine plant during an earlier period. Mention was made of electric saws of type K 5 (production in 1948: 3,800 items.)

In addition to motorcycles, the motor vehicle plant manufactured engines, roller bearings of two different types, and motor vehicle accessories. A 350-cb. cm motorcycle model IZH 350 and a new model ~~IZH~~ 49 were developed after the DKW prototype. Both these models are 11.5 hp two-stroke machines rated at a peak 100-km speed and have a weight of 150 to 160 kg. The new model has a lower gasoline consumption than the old type (3.5 liters per 100 km) and a better performance.

The daily output of 100 motorcycles in 1947/48 was increased to 200 machines daily in 1950/51.

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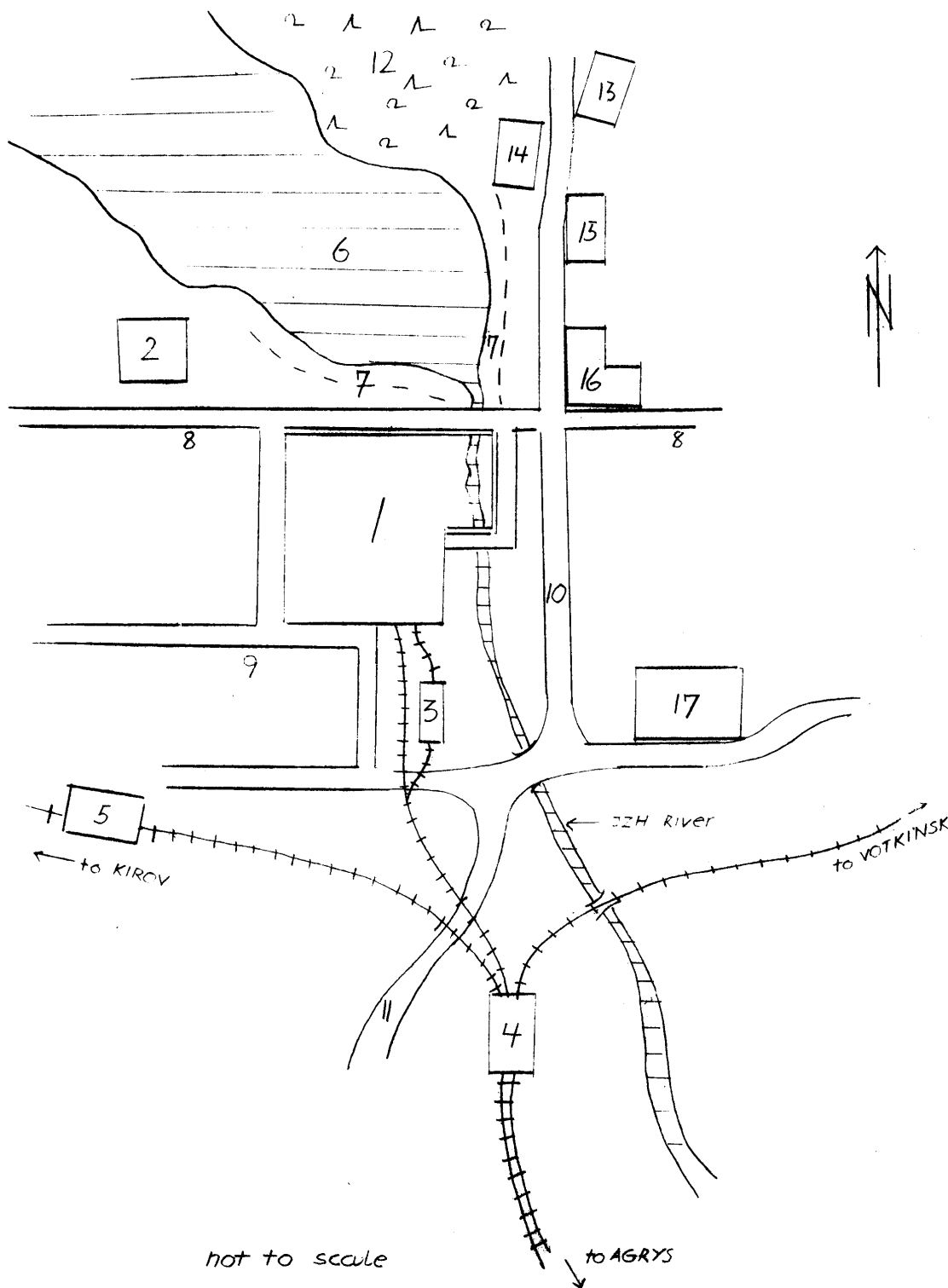
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Annex 1

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Annex 1

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Location Sketch of the Ishevsk Metallurgical Plant

Legend:

- 1 - Metal plant
- 2 - Power plant
- 3 - Locomotive depot and railroad repair shop
- 4 - Kazan railroad station
- 5 - Ufa station
- 6 - Dammed lake
- 7 - 5 to 6-meter high dam
- 8 - Sovetskaya Ulidza
- 9 - Asiya Ulidza
- 10 - Ulidza Gorkove (Maxim Gorki street)
- 11 - Road to Agrys
- 12 - Culture park
- 13 - Theater
- 14 - Court of Justice
- 15 - Ministry
- 16 - Main magazine "Gastronom"
- 17 - Mechanical factory

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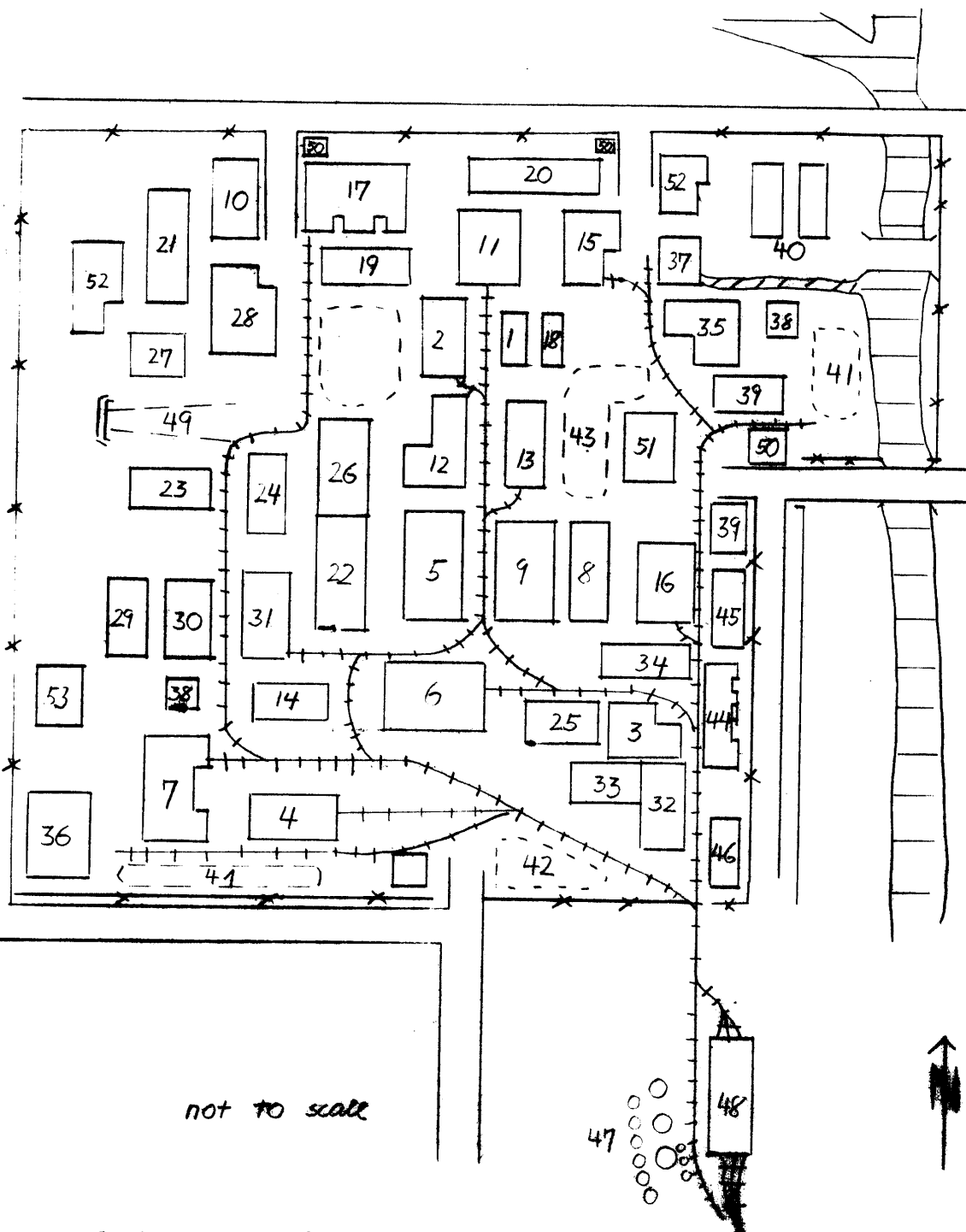
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Annex 2

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- 1 - Metal plant (probably spiegeleisen or crucible steel department) equipped with 3 charcoal furnaces of undetermined capacity. Production: not definitely ascertained.
- 2 - Gray cast iron foundry (department No 18), covering 200 x 70 square meters, equipped with 6 cupola furnaces of 60 tons capacity each. Production: gray castings, and other crankshaft housings.
- 3 - Steel-casting foundry (departments 22/23), 100x 50 meters and 90 x 30 meters floor space respectively, equipped with 2 furnaces of 35 tons capacity each, and 4-5 smaller furnaces of undetermined capacity. Production: steel castings, and chilled castings.
- 4 - Electric steel department equipped with 3 electric furnaces of 10-12 tons capacity. Production undetermined.
- 5 - Old open-hearth furnace plant (department No 17) equipped with 4 open-hearth furnaces of German make with a 30-ton capacity each. Production: Arms and tool steel, construction steel.
- 6 - New open-hearth furnace plant (department 36) equipped with 7 open hearth furnaces 4 of them with a 15-ton capacity. Production: identical to that of the old open hearth furnace plant. 25X1
- 7 - Blooming mill (department 20), 150x80 meters floor space, equipped with 2 Krupp 3-4 meter wide and 60-meter long rolling mill train, one 40-meter rolling mill train, 6 annealing furnaces, and 8 hardening furnaces. Production: billet steel, rods, flat and round steel, steel plates.
- 8 - Finishing rolls (department 14), 200 x 60 meters floor space, equipped with 2 rolling mill trains, one of them 300 meters long. Production: Forming steel, strip steel, and springs.
- 9 - Cold rolling mill (department 16), 200 x 40 meters floor space, equipped with 5 sheet mill trains of German make, 1 wire mill trains of German make, 3 annealing furnaces, 3 hardening furnaces, and 6 hardening and acid baths. Production: cold rolled 3 to 4-mm strip steel, cold rolled 1- to 2-mm thick sheets, wire and springs.
- 10 - Wire mill (department 19) equipped with 1 wire mill train and wire cable mill, which was dismantled in Germany. Production: rolled wire and wire cable.
- 11 - Hammer mill and drop forge (department 15), 150x100 meters floor space, equipped with 12 steam hammers and mechanical hammer of from 5 to 15 tons, 10 hammers of less than 5 tons, 6 to 8 forging presses, 5 to 6 annealing furnaces. Production: Shafts, axles, track wheels and idler wheels for tanks, machine gun and gun shields, and tube blanks.

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- 12 - Boiler plant, 80 x 50 meters floor space, equipped with 10 forging hammers, 4 to 6 forging presses, and several annealing furnaces. Production: boiler casings.
- 13 - Hardening plant (department 26), some 200 x 40 meters floor space, equipped with 30 to 40 annealing furnaces, and 9 hardening furnaces. Production: hardening and grinding of rough work pieces, manufacture of plate springs.
- 14 - Turning and molding plant (department 24) equipped with 6 heavy lathes, 6 large chuck lathes, 12 vertical lathes, 12 chuck lathes and milling machines, 4 automatic lathes and a variety of special machine tools. Production: machining of engines and engine parts such as crankcases, gearboxes, cylinders, pistons and gear wheels.
- 15 - Machine tool plant (department 69), 200 x 100 meters floor space, equipped with 11 lathes, 2 milling machines, 3 grinding machines, several polishing machines, gear cutters, bearing box milling machines, 1 centrifuge, 4 - 5 carpenter's benches and boring units, several Cincinnati machines, testing and measuring sets, tempering installations and acid baths. Production: machine tools (2-meter chuck lathes), crankshafts and connecting rods for steam engines, motor vehicles and tanks, gun tubes and barrels of up to 37-mm caliber, locks, breech blocks, and sights.
- 16 - Files plant (department 25). 120 x 50 meters floor space, equipped with 2 annealing furnaces, 1 hardening furnace, and 70 to 80 finishing machines. Production: triangular files, round files, and flat files.
- 17 - Hardware plant (department 34), 60 x 50 meters floor space, equipped with lathes, automatic lathes, thread cutting machines, boring and milling machines. Production: Bolts, nuts, screws, as well as barrels for pistols, rifles and machine guns.
- 18 - Punching plant (department 13) equipped with some 20 punching machines and several presses. Production: pistol and machine gun parts, ammunition clips, cartridges and shell cases.
- 19 and 20 - Hand firearms plant (departments 57 and 74) equipped with numerous lathes, boring and milling machines, shaping machines, grinding machine and polishing machines. The machinery was of different age. Production: Barrels for pistols, carbines and machine guns, locks, assembly of hand firearms and quick-firing arms. 25X1
- 21 - Arms plant (department 35), of undetermined equipment. Production: pistols, bayonets, breech blocks, tank track parts, and sights. 25X1
- 22 - Gun factory (department 39) 100 x 40 meters floor space equipped with numerous modern machine tools. Production: AT and AA gun barrels of caliber up to 75 mm.
- 23 - Ammunition plant, 150 x 60 meters floor space, of undetermined equipment. Production: mines and torpedo bodies, artillery ammunition (?).
- 24 - Sporting arms plant (department 524 ?), of undetermined equipment. Production: rifles, pointed weapons, combat engineering equipment.

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- 25 - Hardware plant (department 27), of undetermined equipment. Production: hardware items, spades, hatchets, axes, saws, and household utensils.
- 26 - Gear plant and engine repair shop (department 38) equipped with 6 to 7 American vertical lathes, 4 German "Werner" 3 to 4-meter lathes, 2 [REDACTED] planing machines, 1 German [REDACTED] planing machines, 3 large 6-meter automatic lathes, and various gear cutting machines. Production: gear wheels, ship driving shafts, repair of engines and engine parts. 25X1
- 27 - Chain plant (department 30) equipped with 30 to 40 punching machines and other non-cutting shaping machines, which were dismantled property of the former Chemnitz DKW works. Production: chains for motorcycles and cranes.
- 28 - Motor vehicle accessories plant (department 87), some 200 x 60 meters floor space, equipped with lathes, milling and boring machines, grinding machines, and small presses. Production: wheel forks, frames, tanks, and fenders for motorcycles.
- 29 - Casting plant (department 52), some 180 x 130 meters floor space, of undetermined equipment. Production: crankshaft housings and gear parts.
- 30 and 31 - Motorcycle plant (departments 54 and 55) some 300 x 90 meters and 250 x 60 meters floor space respectively, equipped with boring machines, lathes, workbenches, grinding and polishing machines, and other machine tools. Production: subassemblies and final assembly of motorcycles of 200, 250 and 350 cc capacity.
- 32 - Saw mill equipped with 1 large American high-speed saw frame, 2 multiple-blade saw frames, and various circular saws, pendulum saws and ribbon saws. Production: cut timber.
- 33 - Wood working department equipped with numerous different wood-working machines [REDACTED] Production: wooden construction parts, gunstocks, butts of rifles and pistols. 25X1
- 34 - Pattern shop, of undetermined equipment. Production: patterns of machines and arms.
- 35 - Power plant and boiler house (department 41), some 50 x 20 meters floor space, equipped with 10 [REDACTED] furnaces of 20 to 30 cubic meters furnace area each, 1 modern [REDACTED] turbine installation, 2 old turbine installations. 25X1
- 36 - New gas plant, equipped with several coal-burning gas generators.
- 37 - Water station
- 38 - Transformer and switching station

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- 39 - Raw iron and steel depot
- 40 - Depot of finished products including 500 to 600 motorcycles
- 41 - Coal dump
- 42 - Lumber yard
- 43 - Scrap dump
- 44 - Large garage accomodating 60 factory-owned trucks and 15 factory-owned passenger, mostly Studebaker and ZIS models.
- 45 - Motor vehicle repair shop (department 45), some 200 x 50 meters floor space.
- 46 - Fire brigade
- 47 - Fuel depot, some 200 x 20 meters floor space, with several large tanks and a large number of fuel drums, located outside the factory area.
- 48 - Locomotive depot and railroad repair shop with at least 12 factory-owned switchers. The depot is located outside the compound.
- 49 - Test firing range for pistols, carbines and machine guns
- 50 - Guard house
- 51 - Main kitchen
- 52 - Administration building
- 53 - Old gas plant now housing administration offices

CONFIDENTIAL

25X1